

2007

Soybean Management Field Days Managing New and Emerging Disease, Insect and Weed Problems

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Managing New and Emerging Disease, Insect and Weed Problems

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Mid-season tank mixes? (glyphosate + insecticide)

Not recommended because:

- ★ Aphids often not present or at low numbers
- ★ Destroys natural enemies

In 2004: Relatively cool, saw aphid flare-ups
In 2005: Hot & dry, saw spider mite flare-ups

- ★ Overuse ► Pesticide Resistance

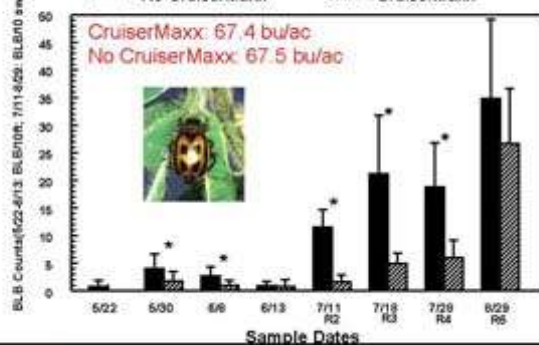
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CruiserMaxx Pak Seed Treatment Study

Planting date: May 6, 2006

Bean Leaf Beetle Counts: Coleridge, NE

■ No CruiserMaxx ▨ CruiserMaxx



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Some Aphid Natural Enemies



Minute pirate bug (*Orius*)
nymph and adult



Lady beetles – egg, larvae, adult



Green lacewing larvae

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Soybean Aphid Economic Threshold (ET) Study



- ★ Mean economic injury level: 654 ± 42 aphids/plant
- ★ Mean ET: 265 ± 17 aphids/plant
- ★ Mean doubling time: 6.8 ± 0.8 d

Use ET of 250 aphids/plant and populations increasing (7 d window)

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Sudden Death Syndrome (SDS)



Management

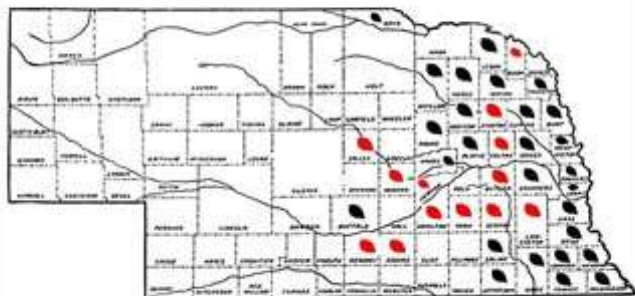
- Avoid early planting
- Variety selection
- Seed treatments have not shown to be effective



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Soybean Cyst Nematode

New Counties (2005 & 2006)



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Management with Resistance and Rotation

- Year 1 – Non-host Crop
- Year 2 – *Resistant Variety**
- Year 3 – Non-host Crop
- Year 4 – *Resistant Variety**
- Year 5 – Non-host Crop
- Year 6 – *Resistant Variety**



** Know the source of resistance and rotate to a different source than you used the last time you planted soybeans.*

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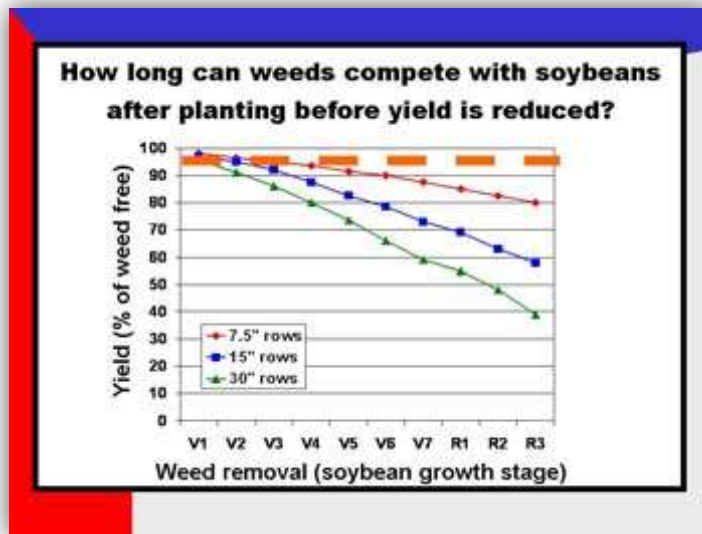
Soybean Rust Update

USDA United States Department of Agriculture Pest Information Platform for Extension and Education

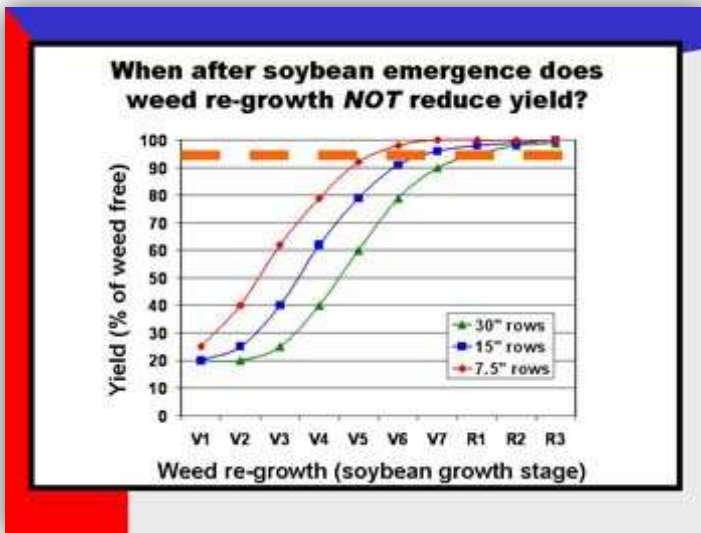
sbrusa.net

United States Soybean Rust Commentary (Updated 07/24/07)
Soybean Rust has been found for the first time this year in Arkansas in Little River County, which is in the southeastern corner of the state looking West. In 2007, rust has been reported in five counties in Arkansas (see map), 10 counties in

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2007smfd-diseaseinsectweed011

What is one pass weed control costing us???

- 1 Post application at V4 – V5:
- In 30" rows, data suggests a potential 20 – 25% yield reduction.
- Assume:
 - \$7.50 cash
 - 45 bu/ac
 - 20% yield loss
- = \$67.50/ac

- Second application of glyphosate:
 - Chemical \$5
 - Application \$8
 - Time/mgmt/misc. \$3
 - Total \$15
- **Net : \$52.50/ac**

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Weed Free Window to Maintain Maximum Yield Potential

30" row spacing

15" row spacing

7.5" row spacing

V1 V2 V3 V4 V5 V6 V7 R1 R2 R3

Recommendations:

- Start with a clean field.
- Control weeds that emerge with the soybeans at the V1 to V3 growth stage.
- Keep soybeans weed free from V1 – V3 until V6 – R1 (row space dependant).

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